



INVESTOR IN PEOPLE

Application No: GB 0221056.5  
Claims searched: 1 to 14

Examiner: Emily McGeehin  
Date of search: 29 April 2003

## Patents Act 1977 : Search Report under Section 17

### Documents considered to be relevant:

| Category | Relevant to claims | Identity of document and passage or figure of particular relevance  |  |
|----------|--------------------|---|--|
| X        | 1 to 5, 7 to 14    | WO01/86699A2  | BOARD OF TRUSTEES OF THE LELAND STANFORD JUNIOR UNIVERSITY<br>Figure 1<br>Page 10, para 1 to page 11 para 1<br>Page 11, para 3, lines 10 to 13<br>Page 13, para 1<br>Page 16, para 1, lines 2 to 3<br>Page 18, paras 1 and 2 |
| X        | 1 to 13            | US4863877A  | FAN ET AL<br>Abstract<br>Column 2, lines 48 to 51<br>Column 3, lines 6 to 12<br>Column 4, lines 52 column 5, line 32   |
| A        |                    | Coutaz et al, <i>Be-doped low-temperature grown GaAs for ultrafast optoelectronic devices and applications</i> (Semiconducting and insulating materials conference 2000, pages 89 to 96)<br>Abstract<br>Figure 7<br>Sections A, B1, B2, C, D, F and G |  |
| A        |                    | Lin & Pan, <i>Near-Bandgap ultrafast optical responses of furnace annealed arsenic-ion implanted GaAs</i> (Lasers and electro-optics, IEEE Proceedings Vol 2 10-13 pages 531 to 532, Nov 1997)<br>Abstract<br>Whole document                          |  |
| A        |                    | Tan et al, <i>Ion-implanted GaAs for subpicosecond optoelectronic applications</i> (IEEE Journal of selected topics in quantum electronics, Vol 2 No 3 pages 636 to 642, Sep 96)<br>Abstract<br>Figure 5<br>Whole document                            |  |

### Categories:

|   |   |   |  |
|---|---|---|--|
| X | Document indicating lack of novelty or inventive step   | A | Document indicating technological background and/or state of the art.  |
| Y | Document indicating lack of inventive step if combined with one or more other documents of same category. | P | Document published on or after the declared priority date but before the filing date of this invention.          |
| & | Member of the same patent family  | E | Patent document published on or after, but with priority date earlier than, the filing date of this application. |



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**Field of Search:**

Search of GB, EP, WO & US patent documents classified in the following areas of the UKC<sup>v</sup>:

H1K

Worldwide search of patent documents classified in the following areas of the IPC<sup>7</sup>:

H01L

The following online and other databases have been used in the preparation of this search report :

EPODOC, WPI, JAPIO, INSPEC



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Your ref: SMM/GBP85910  
Application No: GB 0221056.5  
Applicant: TeraView Limited

Examiner: Emily McGeehin  
Tel: 01633 814985  
Date of report: 17 April 2003

Latest date for reply: 13 September 2004

Page 1/2

## **Patents Act 1977**

### **Combined Search and Examination Report under Sections 17 & 18(3)**

#### **Plurality of invention (section 14(5)(d))**

1. Your claims define a number of separate inventions not forming a single inventive concept. The inventions are:

Invention 1: The invention as defined by claims 1 and 3

Invention 2: The invention as defined by claims 16 and 23

Invention 3: The invention as define by claim 22

Invention 4: The invention as defined by claim 25

2. You will need to amend your claims, so that they relate to only one invention or inventive concept. You will also need to make consequential amendments to the description. You may wish to consider filing divisional applications. Any such applications should normally be filed no later than 3 months before the expiry of the period for putting the present application in order.

#### **Scope of search**

3. In accordance with Section 17(6), only the first of these inventions has been searched. The other inventions can be searched if you wish. In this case you will have to file a further Form 9/77 for each of the additional inventions to be searched.

#### **What this report covers**

4. I have not been able to consider the novelty or obviousness of the unsearched inventions.

#### **Novelty (section 1(1)(a))**

5. The invention as defined in claims 1 to 14 is not new because it has already been disclosed in each of the following documents:

D1: WO01/86699A2

D2: US4863877A

D3: Coutaz et al, *Be-doped low-temperature grown GaAs for ultrafast optoelectronic devices and applications* (Semiconducting and insulating materials conference 2000, pages 89 to 96)

D4: Lin & Pan, *Near-Bandgap ultrafast optical responses of furnace annealed arsenic-ion implanted GaAs* (Lasers and electro-optics, IEEE Proceedings Vol 2 10-13 pages 531 to 532, Nov 1997)



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Page 2/2

[ Examination Report contd. ]

D5: Tan et al, *Ion-implanted GaAs for subpicosecond optoelectronic applications* (IEEE Journal of selected topics in quantum electronics, Vol 2 No 3 pages 636 to 642, Sep 96)

6. Each of the above documents discloses examples of semiconductor devices reformed at temperatures below 475°C.

#### Clarity and Support (sections 14(5)(b) and (c))

7. There is some disagreement between figures given in the description and those defined in claim 25. The ninth aspect of the invention (page 8, paragraph 3) quotes that the pump laser beam has a wavelength between 1040 and 1070 nm, claim 25 however gives this ranges as 1300 to 1550 nm.

8. Please remember that any changes made to the claims in your application must be reflected in the accompanying description and statement of invention incorporated therein.